interventions are described, and their worth is open to debate. For example, does the attempt to "correct" severe hypokalemia over only one day before surgery really reduce perioperative morbidity? In any case, one does not establish the value of 258 consultations simply by describing a few such episodes.

Finally, even if we are convinced that benefit may derive from the discovery of the risk factors cited by Levinson, is it really necessary to call in an internist to do the sleuthing? Let us excuse the ophthalmologist for his or her presumed inability to recognize any problems residing outside the orbit, but what of the anesthesiologist? Remarkably enough, Levinson never specifies what type of anesthesia was administered (that is, local versus general), whether an anesthesiologist was present during surgery or whether a preoperative anesthesiologist's visit was made. If, as is true in many hospitals, most eye surgery patients have "local standby" anesthesia (local anesthesia with an anesthesiologist present to provide sedation, monitoring and general anesthesia should it become necessary), good anesthetic practice would require a preoperative visit. Is it not conceivable that the anesthesiologist might perceive that the patient suffers from severe lung disease, atrial fibrillation or hypokalemia? It is difficult to credit Levinson's cost-benefit analysis for the internists' consultations when the possible contribution of the anesthesiologist is entirely ignored. Dr Abrams laments the "narrow focus of specialists in medicine." Indeed.

Although Levinson has attempted to shed light on an important area of medical practice, this study unfortunately obfuscates more than it illuminates. The data fail to demonstrate the benefit of preoperative medical consultation even in her selected study population, let alone justify the conclusion put forth by both Levinson and Abrams that routine consultation in eye surgery patients over age 50 is warranted.

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**REFERENCES**

1. Levinson W: Preoperative evaluations by an internist—Are they worthwhile? (Health Care Delivery). West J Med 1984 Sep; 141:395-398

2. Abrams J: Medical workups before eye operations (Editorial). West J Med 1984 Sep; 141:373-374

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## Dr Levinson Replies

TO THE EDITOR: In response to comments by Dr Bryan Bohman about my article "Preoperative Evaluations by an Internist—Are They Worthwhile?", I would respond with the following.

My study was not attempting to *prove* that routine consultations by internists resulted in decreased morbidity or mortality to patients. Clearly a randomized controlled study addressing this subject would be most difficult to perform. However, in practice many ophthalmologists *do* obtain the advice of an internist before surgery and this study informs the reader about what the internists actually discovered. Objective criteria were used to evaluate risk factors including chronic lung disease whenever documentation was available and interventions were made for 39 of those 59 risk conditions. Of these surgeries, 95% were done under general anesthesia.

It is true that the anesthesiologist might have discovered and treated some of these conditions and hence the internist's help was redundant. However, overall in reviewing the number of significant risk conditions and incidental findings found by an internist, I conclude that these evaluations are warranted in patients older than 50 years. I suspect that appropriate interventions for risk conditions led to decreased morbidity and perhaps mortality in some cases. Furthermore, the cost of the consultation is very small relative to the cost of surgical procedures.

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## Dr Abrams Replies

TO THE EDITOR: A careful reading of my comments on the Levinson article suggests that my conclusion is not as sanguine regarding Dr Levinson's thesis as Dr Bohman believes. While concurring "that routine interventions . . . should be limited only to those persons older than 50," I also go on to say that greater cost-effectiveness could have been achieved if the ophthalmologist had called for consultation in only those patients with *significant surgical risk* . . . ." In my analysis of the serious complications I stressed that only 1 of 11 major complications was even remotely affected by the internist's preoperative evaluation, and in that case (of rapid atrial fibrillation) postoperative intervention still was not necessary.

Dr Levinson's recommendation of a routine internist evaluation in patients over 50 derived from her discovery of significant risk factors present in approximately one out of five persons over 50 and the unclear nature of nonophthalmologic care of these patients. She makes the case that the costs involved were quite modest, compared with the cost of the surgery (and, presumably, anesthesia as well).

With respect to Dr Bohman's point regarding the patients in whom a consultation was not requested, one would assume that these were persons free of any overt risk after the history and physical were carried out by the ophthalmologist. These patients may have had recent clearance from their own physicians.

I still feel that Dr Levinson's contribution is worthwhile, in that it focuses on a little-addressed area in medical literature. Dr Bohman's criticisms are for the most part well taken, but I would prefer to view them in the nature of a continuing dialogue regarding the necessity for preoperative evaluations. More data are required. My editorial conclusion remains intact: "one wonders if good common sense and attention to details might not be even more cost-effective than calling internists in routinely."

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